

REMARKS

Claims 1-50 are pending in this application. By this Amendment, independent claims 1 and 42 are amended to even more clearly distinguish over the applied references. In addition, the Abstract is amended so that it has a length that is no greater than 150 words. No new matter is added by the above amendments.

The Office Action objected to the Abstract as having a length of greater than 150 words. The amended Abstract overcomes this objection. Withdraw of the objection is requested.

Applicant notes with appreciation the identification of allowable subject matter in claims 3-16, 19-21, 24-26, 30-32, 37-39 and 44-46. For at least the reasons set forth below, Applicant respectfully submits that all pending claims are in condition for allowance.

Claims 1, 2, 17, 18, 22, 23, 27-29, 33-36, 40-43 and 47-50 stand rejected under 35 U.S.C. §102(b) over U.S. Patent No. 6,033,079 to Hudyma. This rejection is respectfully traversed.

Applicant respectfully submits that Hudyma does not disclose or suggest the combination of features recited in independent claims 1 and 42 of this application including, *inter alia*, an arrangement in which the first reflective image forming optical system includes, in order of an incidence of light from a side of the first plane, a first reflective mirror M1, an aperture stop, and a second reflective mirror M2, such that the light is reflected by the first reflective mirror M1, passes through the aperture stop, and then is reflected by the second reflective mirror M2. That is, Hudyma does not disclose or suggest an arrangement in which the aperture stop is optically disposed between the first reflective mirror and the second reflective mirror.

The Office Action cited col. 7, lines 32-33 of Hudyma. However, this portion of Hudyma (as well as col. 12, lines 16-17) discloses that "a physical aperture stop is located at

mirror M2." Similarly, Tables 2.0 and 5.0 indicate that the aperture stop is "accessible on M2." Thus, Hudyma does not disclose or suggest an arrangement in which the aperture stop is optically disposed between the first and second mirrors.

As described in the present specification at, for example, paragraph [0030], placing the aperture stop between the first and second mirrors increases the degree of freedom of placement of the aperture stop, such that upper coma and lower coma is more easily balanced, while also facilitating reduction of the size of the mirrors in the system. Placing the aperture stop at the second mirror, as in Hudyma, provides no flexibility. Hudyma does not disclose or suggest placing the aperture stop optically between the first and second mirrors, and does not disclose or suggest obtaining the above-noted advantages from such a placement of the aperture stop.

Accordingly, all pending claims are patentable over Hudyma. Withdraw of the rejection under 35 U.S.C. §102(b) is requested.

Claims 1, 2, 17, 18, 22, 23, 27-29, 33-36, 40-43 and 47-50 stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,600,552 to Dinger.¹ This rejection is respectfully traversed.

Dinger also does not disclose or suggest the combination of features recited in independent claims 1 and 42 including, *inter alia*, an aperture stop that is optically disposed between the first and second mirrors (labeled S1 and S2 in Dinger).

The Office Action cites col. 10, line 35 of Dinger. This portion of Dinger is comparing the embodiments of Fig. 2 and Fig. 4, each of which optically provides the aperture stop B between the second and third mirrors (S2 and S3). In Fig. 2, the aperture stop B, while

¹ The PTO-892 cites US 2004/0057134, which is the publication number for a continuation application of the Dinger 552 Patent, which includes the same disclosure as the Dinger 552 Patent.

located physically between the first mirror S1 and the second mirror S2, clearly is optically located between the second mirror S2 and the third mirror S3, such that light reflected from the second mirror S2 passes through the aperture stop B, and then is reflected by the third mirror S3. On the other hand, light reflected by the first mirror S1 does not pass through the aperture stop B prior to being reflected by the second mirror S2. This is clear from Fig. 2, as well as the description of Fig. 2 provided, for example, at col. 4, lines 18-31, and col. 8, lines 7-12. In Dinger Fig. 4, the aperture stop B is physically provided on the first mirror S1, but is optically provided between the second and third mirrors S2 and S3, as is clear from Fig. 4 and from col. 8, lines 7-12 and col. 9, line 52 - col. 10, line 41. Accordingly, the embodiments of Figs. 2 and 4 of Dinger, including col. 10, line 35, which is cited in the Office Action, does not disclose or suggest disposing the aperture stop so that it is optically located between the first and second mirrors as recited in independent claims 1 and 42.

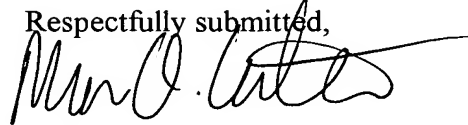
The embodiments of Dinger Figs. 5-7 provide the aperture stop at the second mirror S2. See, for example, Figs. 5-7, col. 7, lines 41-43, col. 14, lines 31-32 and col. 16, lines 18-19. Accordingly, like Hudyma, Dinger does not disclose or suggest providing the aperture stop optically between the first and second mirrors, and does not recognize or suggest the advantages that can be obtained from such an arrangement, as described, for example, in paragraph [0030] of the present specification.

Accordingly, Dinger does not disclose or suggest the combination of features recited in the claims of this application. Withdraw of the rejection under 35 U.S.C. §102(e) is requested.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number set forth below.

Respectfully submitted,



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MAC/ms

Attachments:

Amended Abstract
Petition for Extension of Time

Date: November 17, 2004

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